

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/1 J3/03295

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G10H1/00 G10H1/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G10H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 298 674 A (YUN SANG-LAK) 29 March 1994 (1994-03-29) column 4, line 66 -column 5, line 48 column 6, line 13 - line 55 figure 2	1-9
A	US 4 841 572 A (KLAYMAN ARNOLD I) 20 June 1989 (1989-06-20) column 6, line 17 -column 8, line 32; figures 1,4,5	1-3,6-9
A	EP 0 831 458 A (NIPPON TELEGRAPH & TELEPHONE) 25 March 1998 (1998-03-25) page 5, line 3 - line 19; figure 1	1,2
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex

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- *P* document published prior to the International filing date but later than the priority date claimed

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- *&* document member of the same patent family

Date of the actual completion of the international search

27 October 2003

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03/11/2003

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 4 866 774 A (KLAYMAN ARNOLD I) 12 September 1989 (1989-09-12) column 3, line 4 -column 5, line 22 column 8, line 21 -column 9, line 9 column 9, line 49 -column 10, line 38 figures 1,3,4</p> <p>-----</p>	1,2

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5298674	A	29-03-1994	KR 9401861 B1 JP 3156975 B2 JP 5088695 A	09-03-1994 16-04-2001 09-04-1993
US 4841572	A	20-06-1989	CA 1299111 C IL 89410 A KR 9402166 B1 WO 9011670 A1	21-04-1992 16-02-1992 18-03-1994 04-10-1990
EP 0831458	A	25-03-1998	CA 2215746 A1 EP 0831458 A2 JP 3355598 B2 JP 10313497 A US 6130949 A JP 3384540 B2 JP 10313498 A JP 3379083 B2 JP 10313500 A	18-03-1998 25-03-1998 09-12-2002 24-11-1998 10-10-2000 10-03-2003 24-11-1998 17-02-2003 24-11-1998
US 4866774	A	12-09-1989	AU 614191 B2 AU 4310489 A CA 1309031 C DE 68928180 D1 DE 68928180 T2 EP 0400106 A1 EP 0773702 A2 HK 1002150 A1 JP 3046319 B2 JP 3502635 T KR 9304933 B1 WO 9005438 A1	22-08-1991 28-05-1990 20-10-1992 21-08-1997 13-11-1997 05-12-1990 14-05-1997 31-07-1998 29-05-2000 13-06-1991 10-06-1993 17-05-1990